

1/19

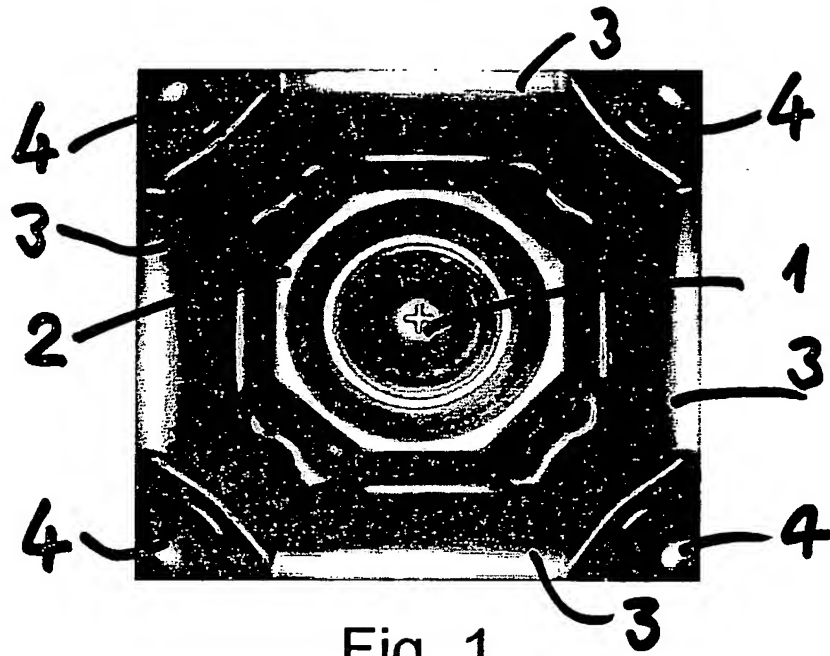


Fig. 1

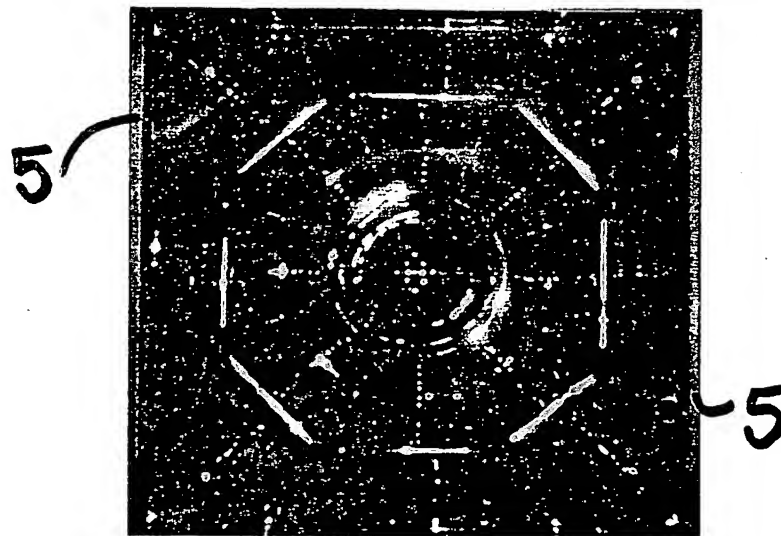


Fig. 2

2/19

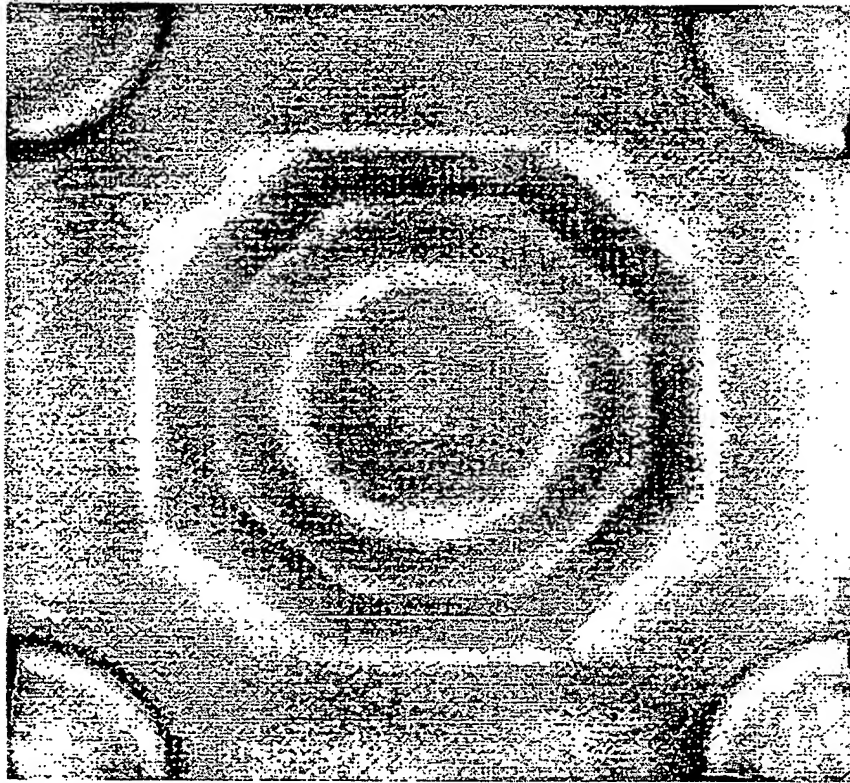


Fig. 1 A

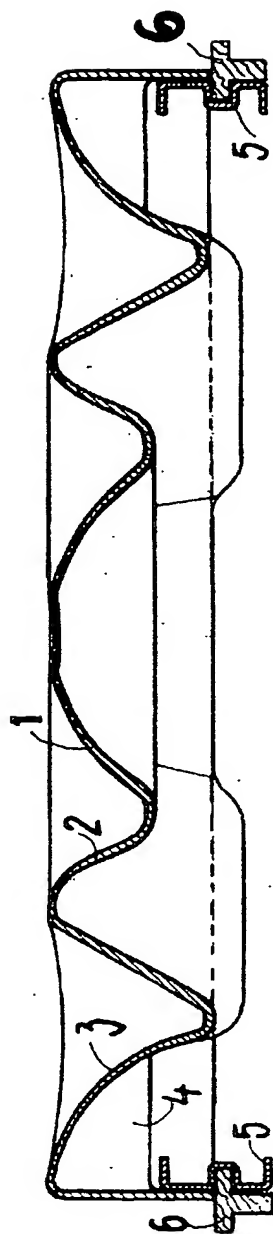


Fig. 3

4/19

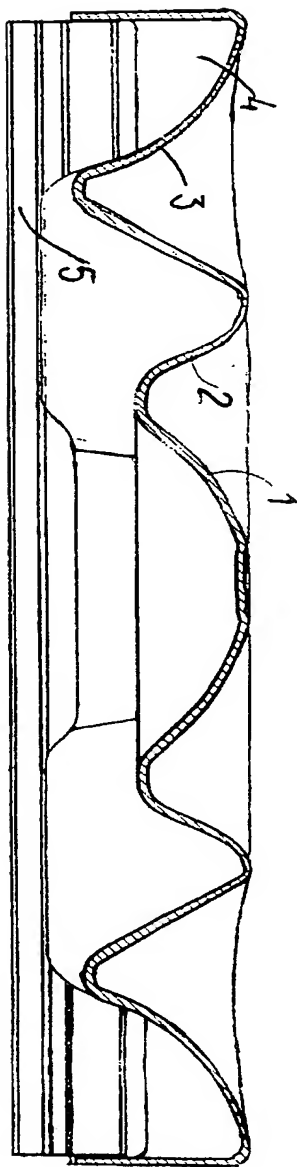


Fig. 4

5/19

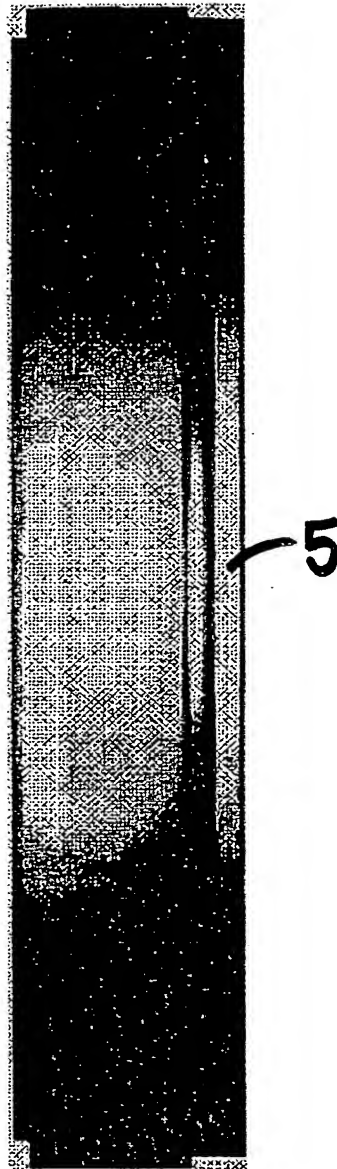


Fig. 5

6/19

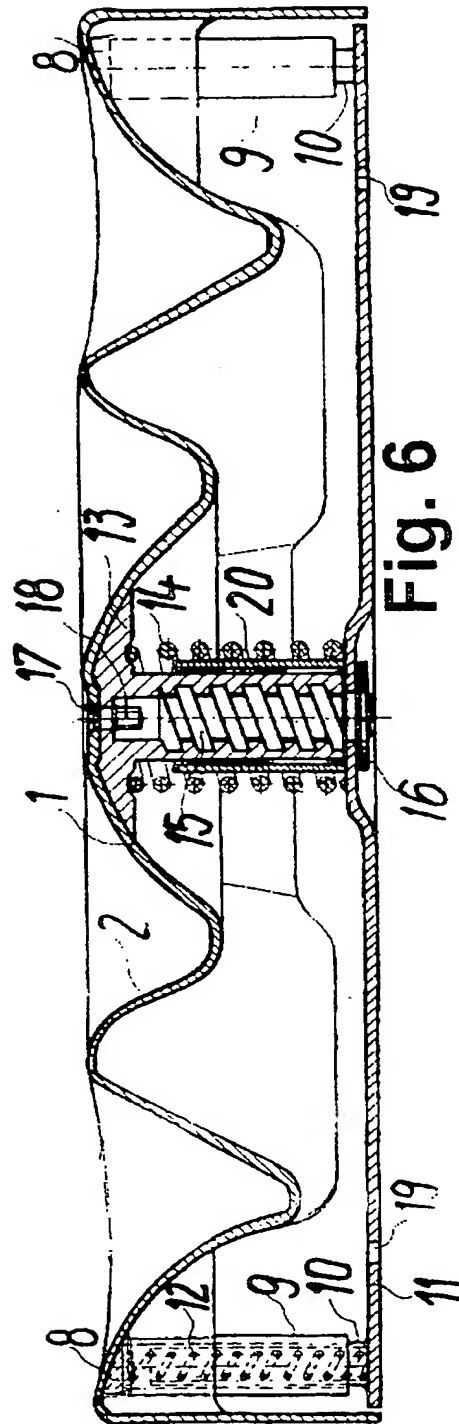


Fig. 6

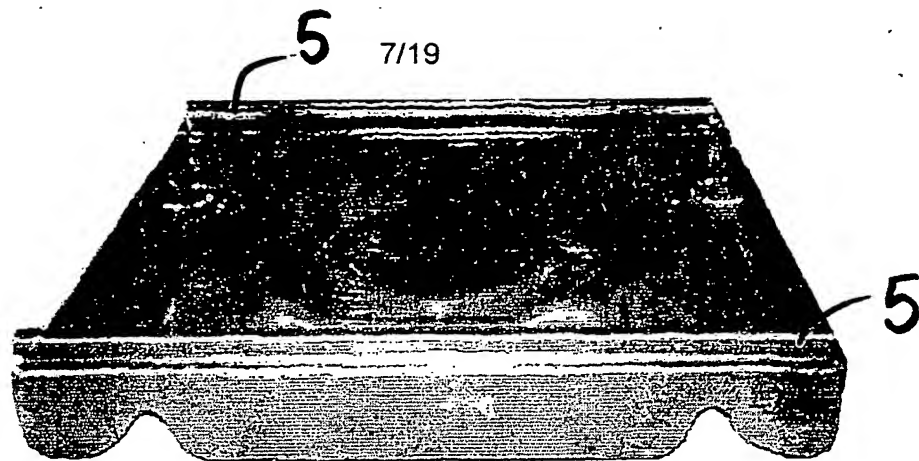


Fig. 7 A

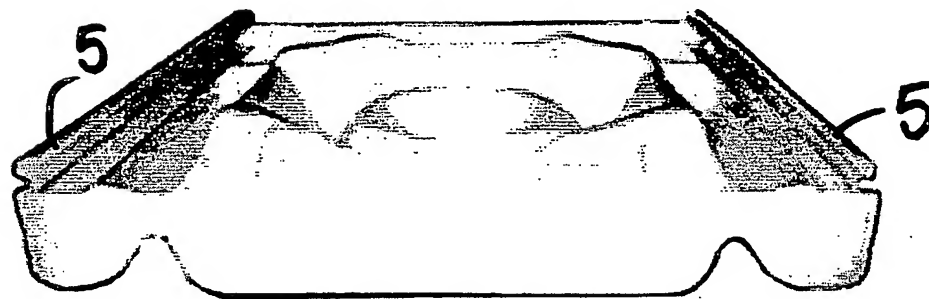


Fig. 7 B

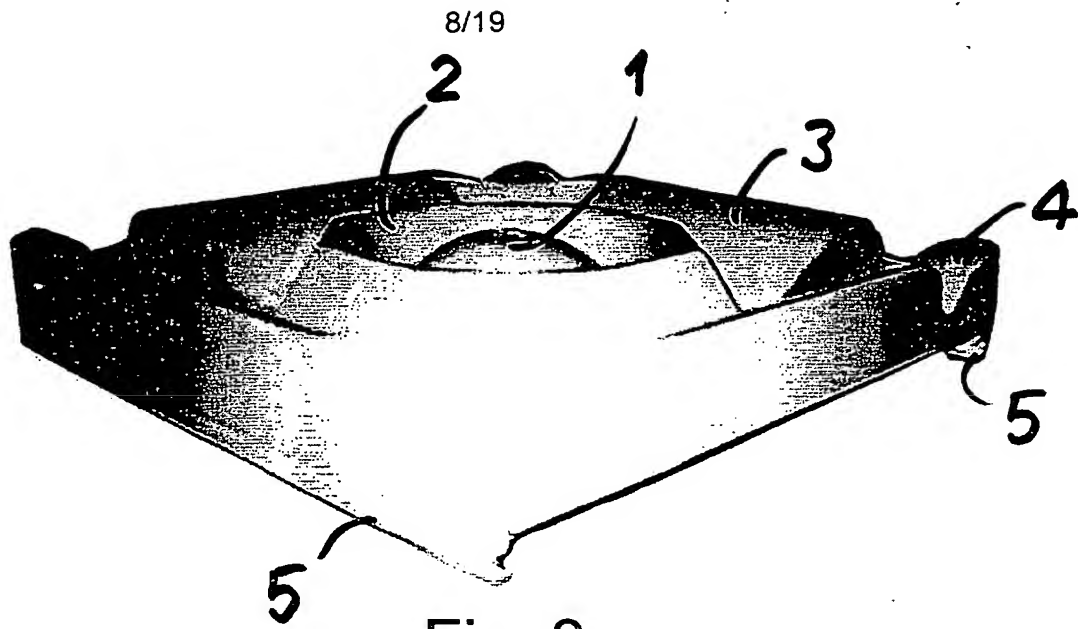


Fig. 8

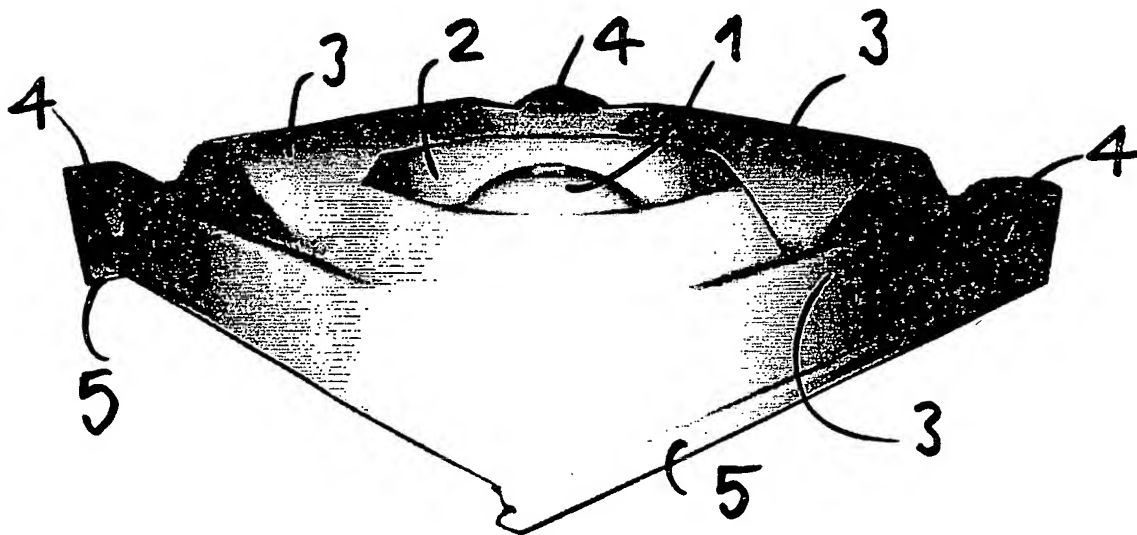


Fig. 9

9/19

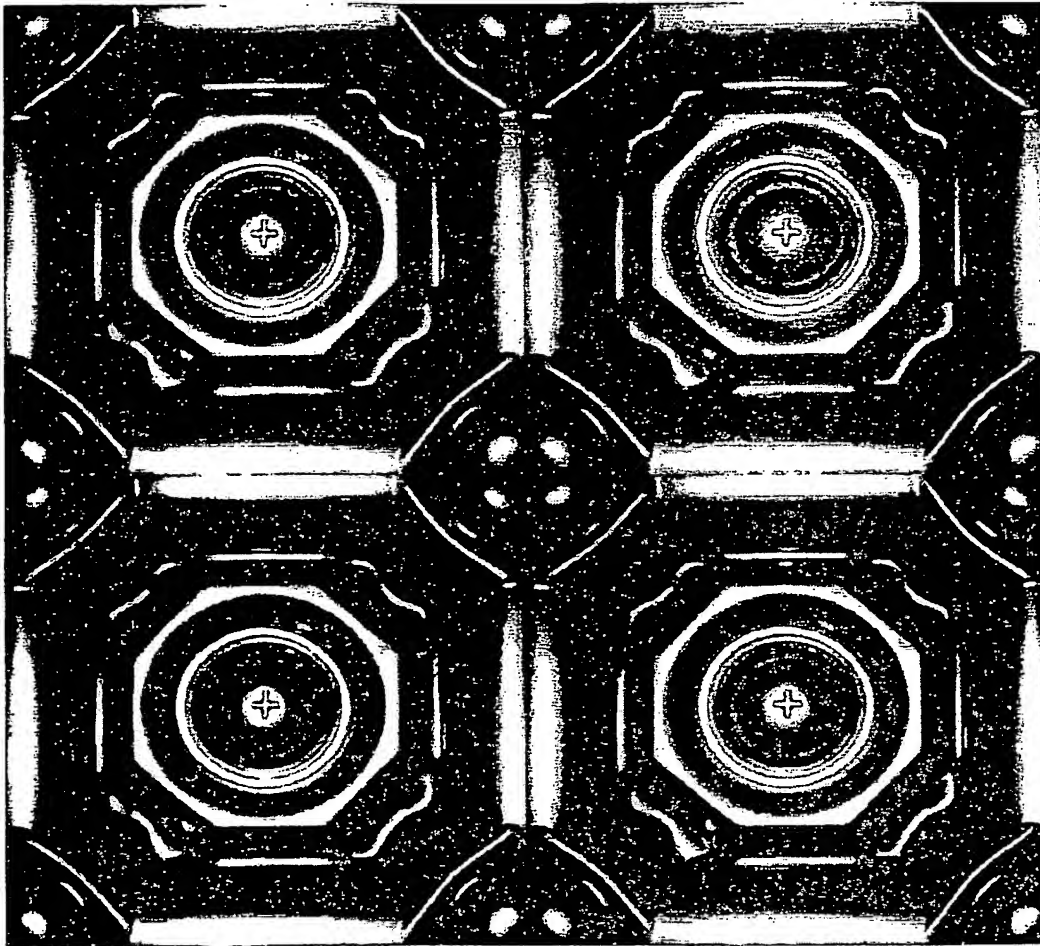


Fig. 10

10/19

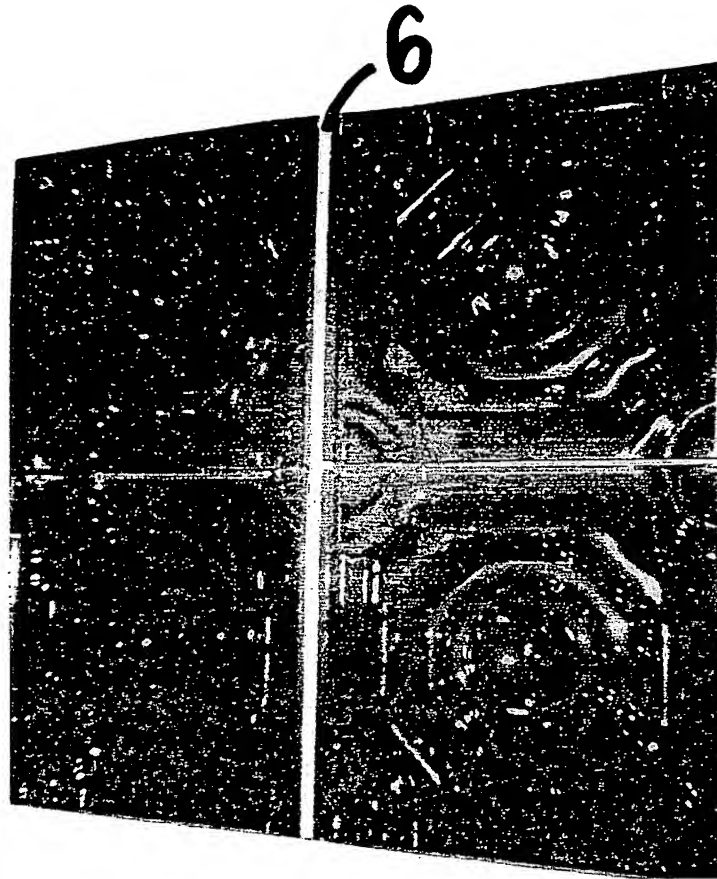


Fig. 11

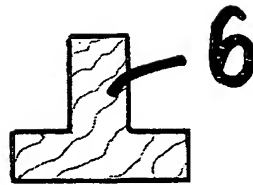


Fig. 11 A

11/19

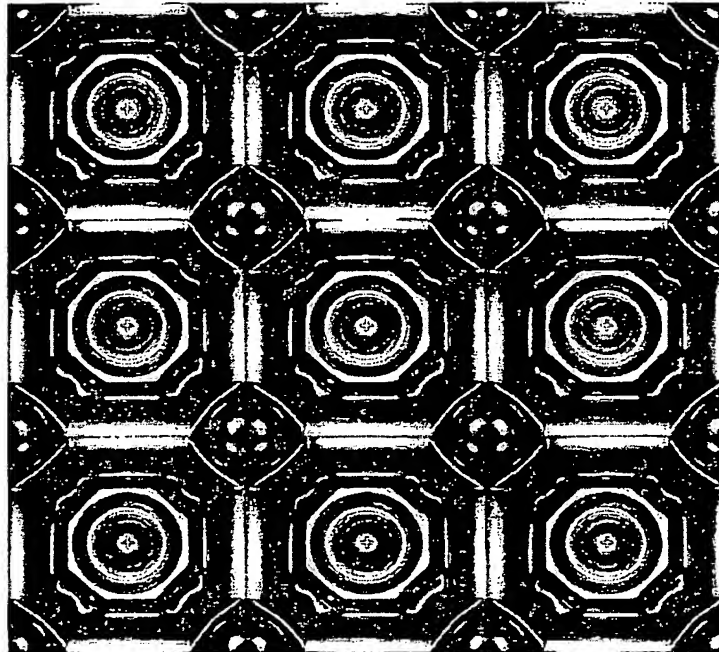
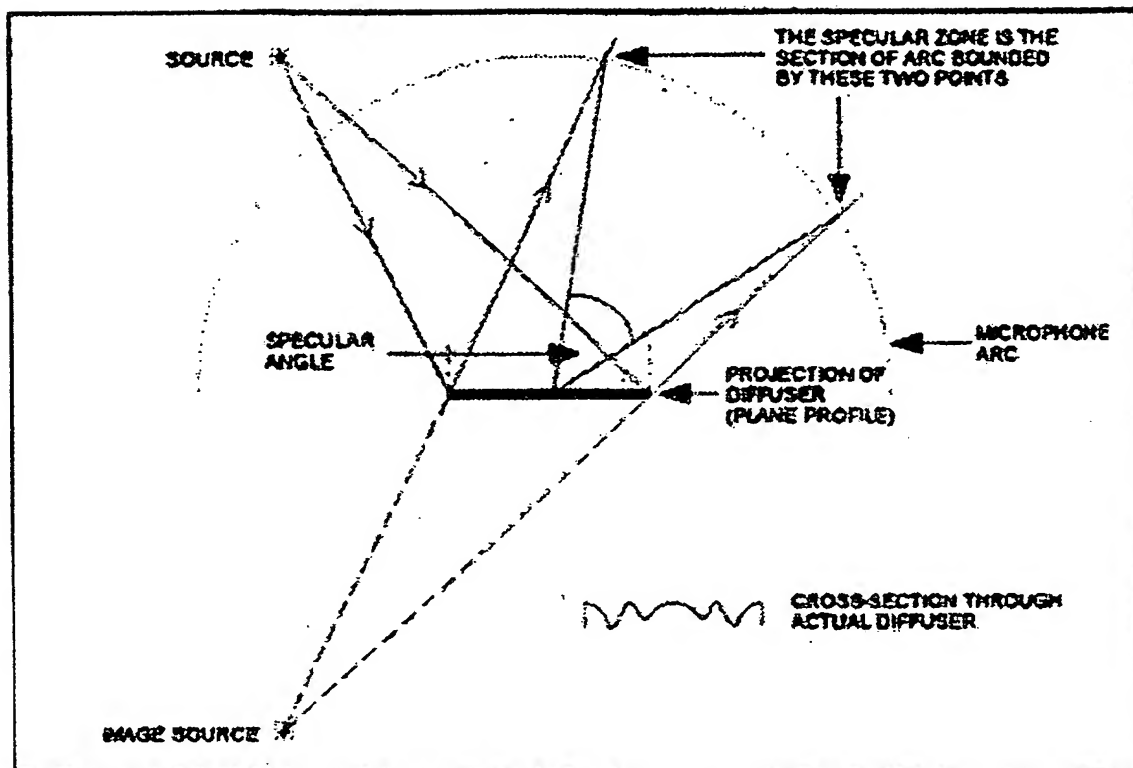


Fig. 12

12/19

**Fig. 13**

13/19

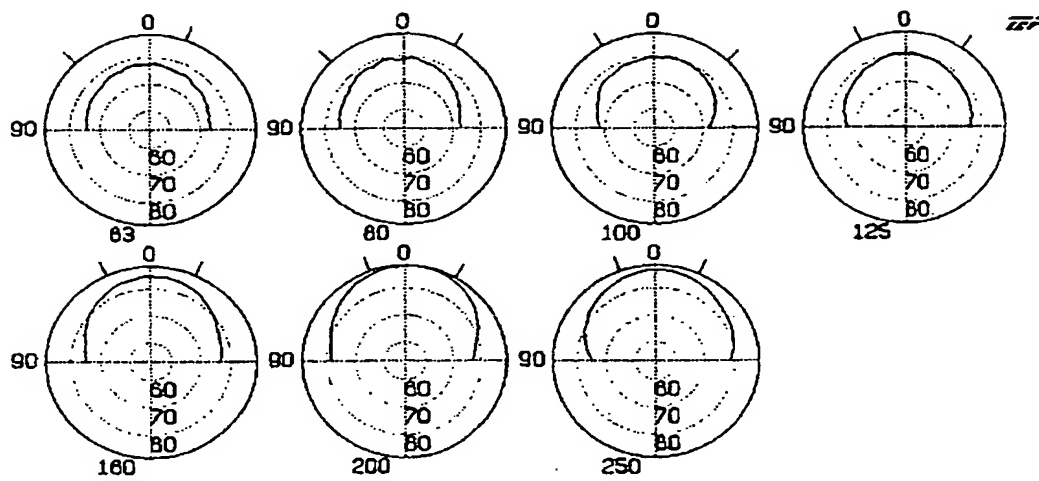


Fig. 14

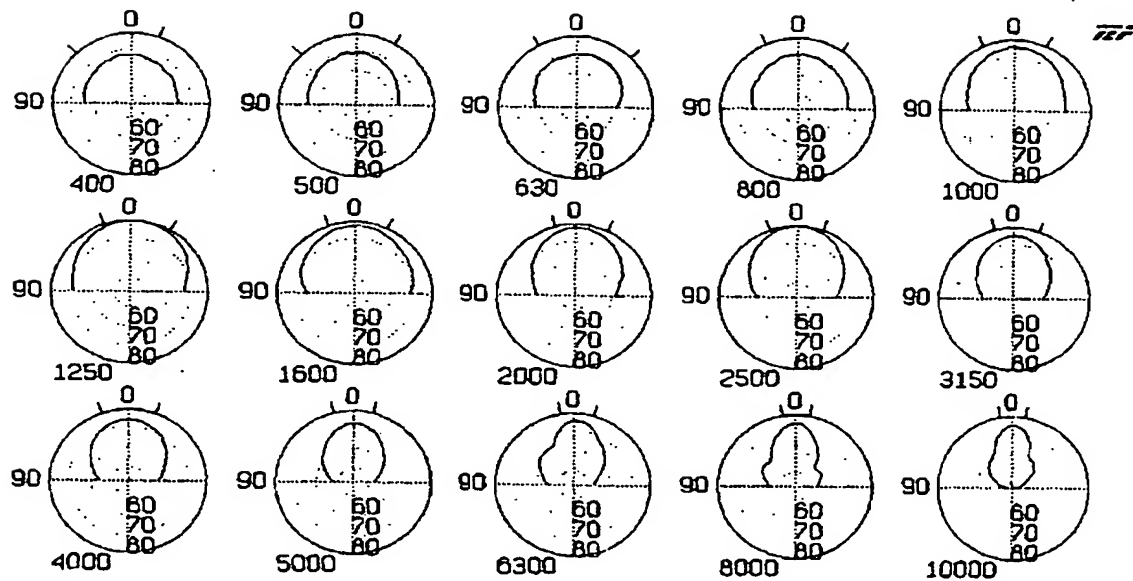


Fig. 15

14/19

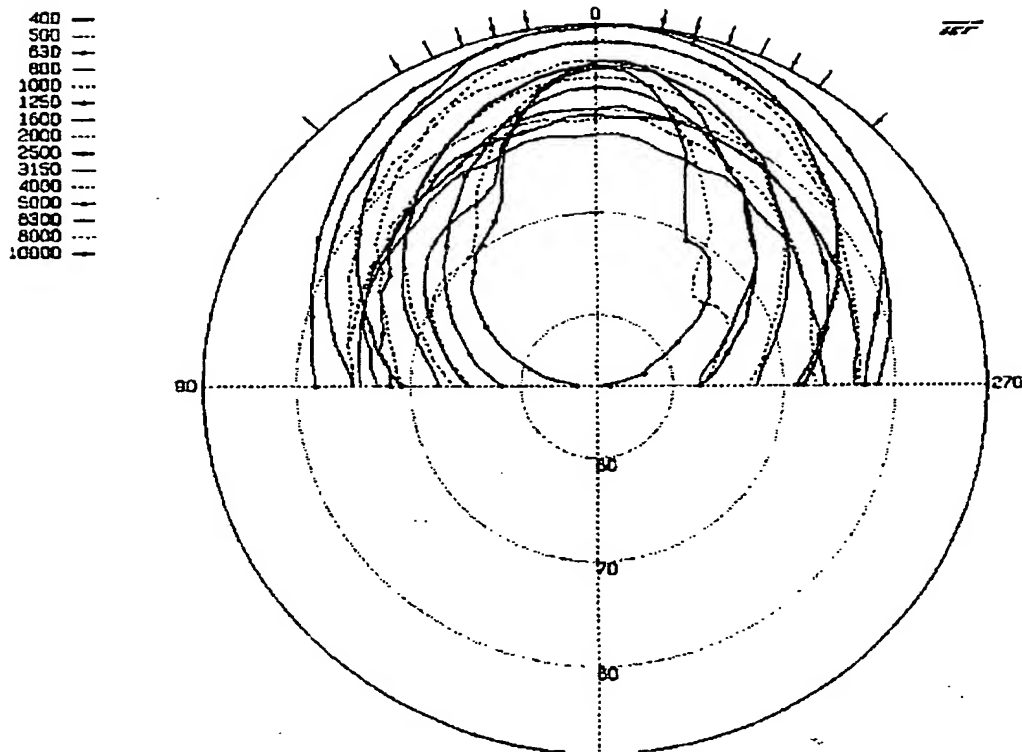
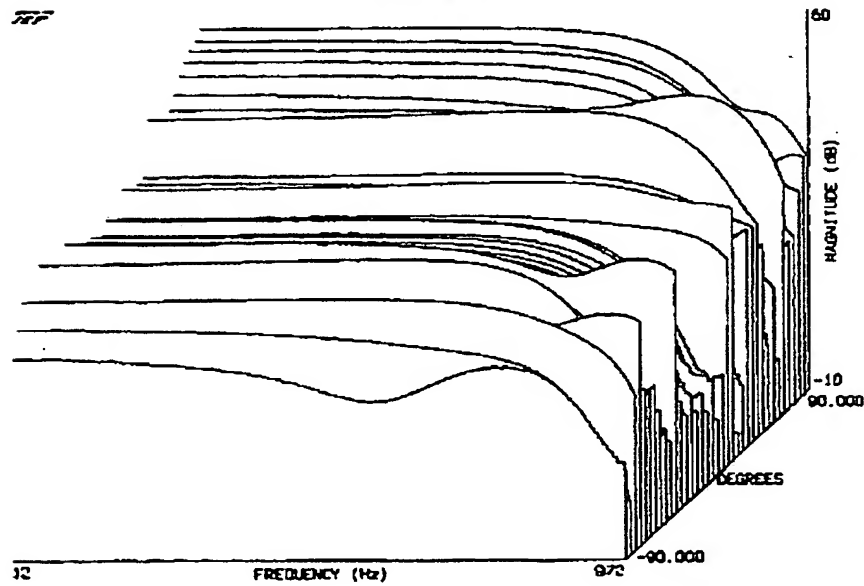


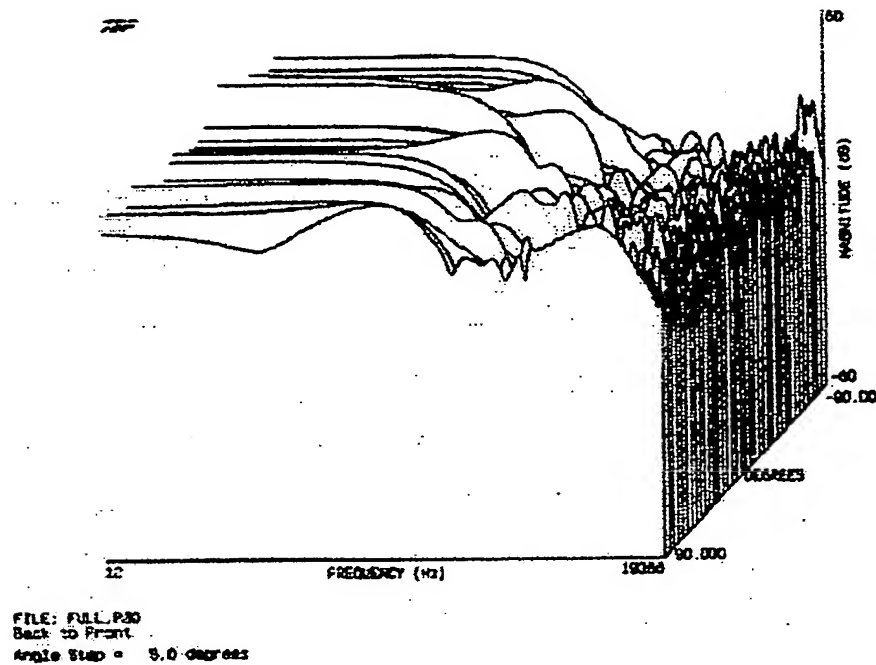
Fig. 16



FILE: NEWLOWALL.P30
Front to Back

Fig. 17

15/19



0 dB is 0.00002 Pa

Job Description:
FULL RANGE MEASUREMENT

SWEEP:
Start Frequency: 11.5 Hz
Stop Frequency: 19388.4 Hz
Sweep Time: 0.427 seconds
Distance Resolution: 0.3 meters
Frequency Resolution: 1113.6 Hz
Time Resolution: 0.9 milliseconds
Receive Delay: 4.502 milliseconds
Start Angle: -90.000 degrees
End Angle: 90.000 degrees
Number of Samples: 1024
Number of Curves: 17
Octave Smoothing: 0.0 percentage

Fig. 18

16/19

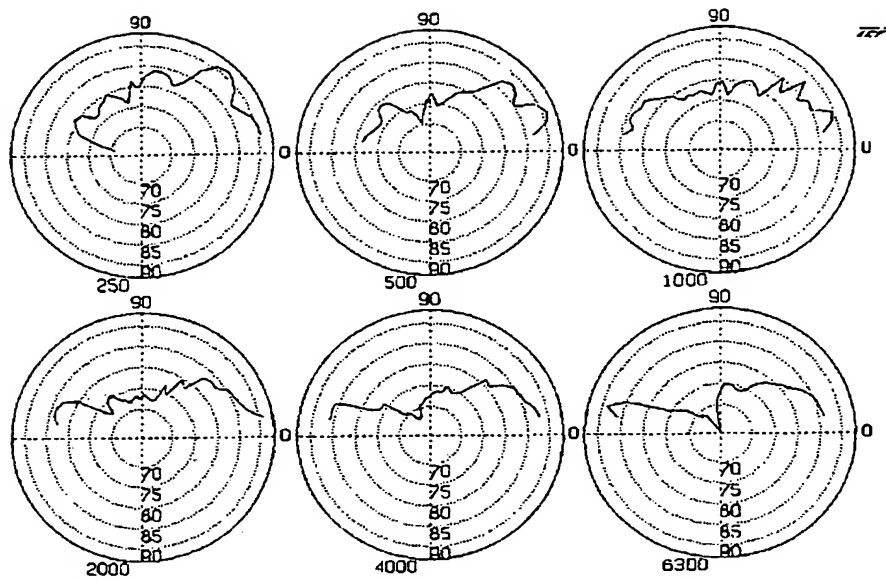


Fig. 19

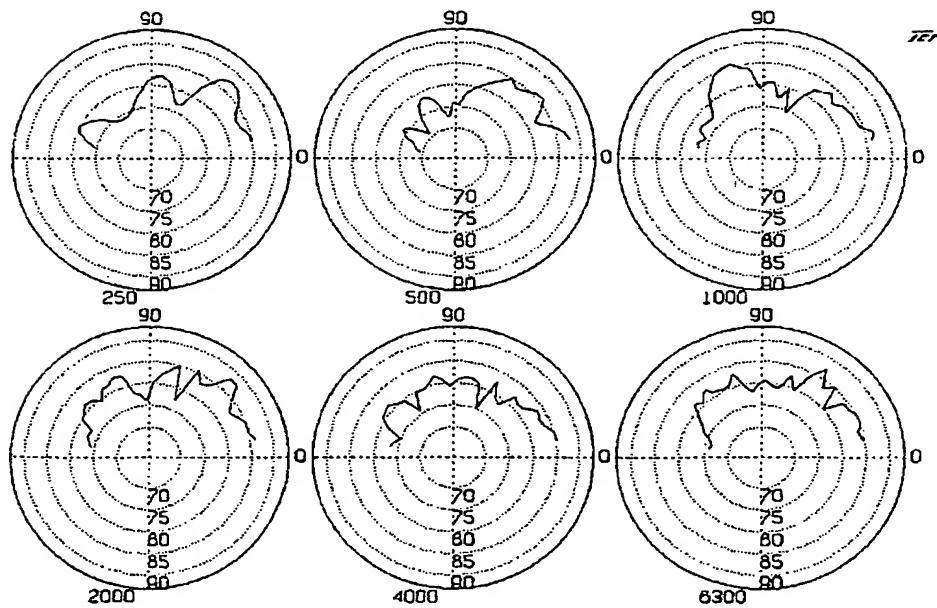


Fig. 20

17/19

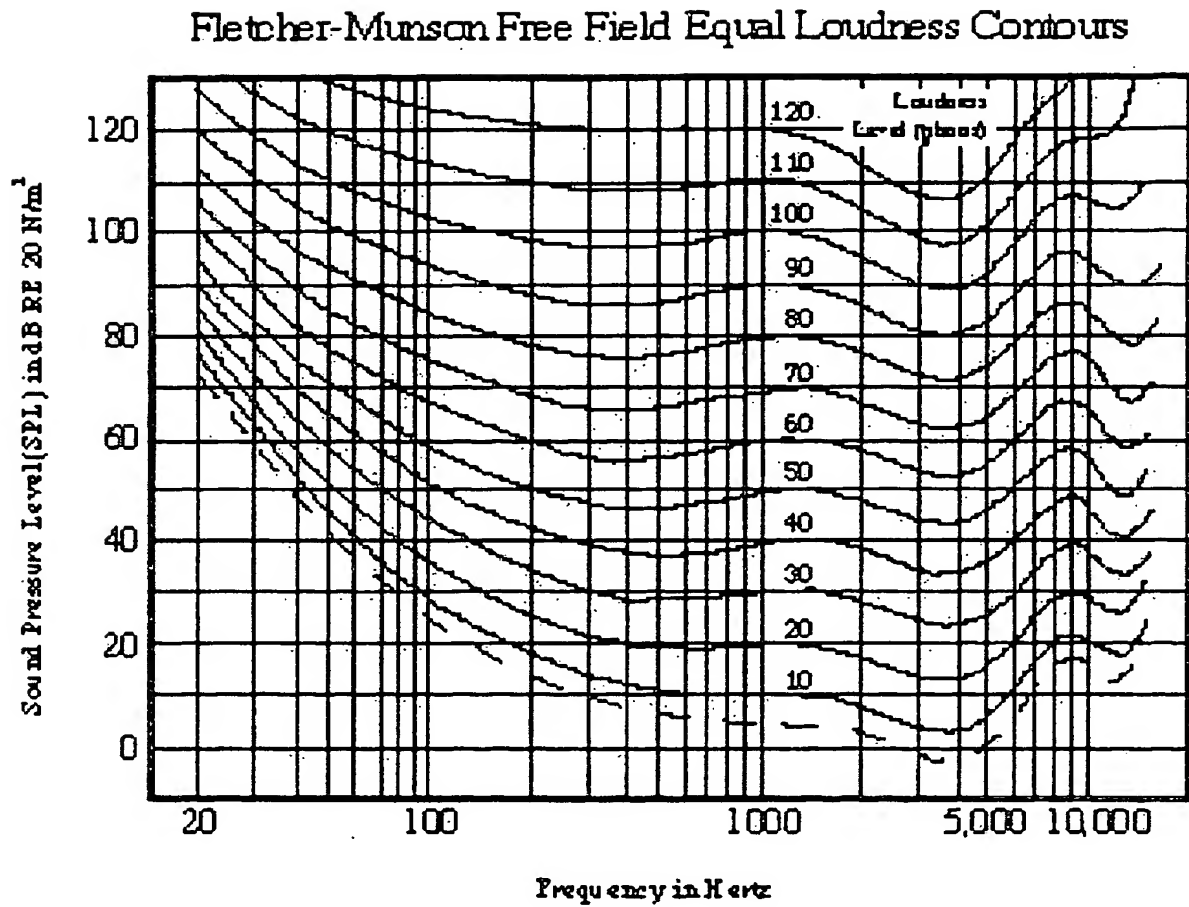


Fig. 21

Table T1

U.S. Patent Documents (1)

FIELD OF SEARCH			181/286,287,288,290 293,295,296,30,150
2902854	Sep., 1959	Greene	181/150
3557901	Jan., 1971	Young.	
3721050	Mar., 1973	Perina.	
4029170	Jun., 1977	Phillips.	
4312420	Jan., 1982	Gatti.	
4365113	Dec., 1982	Soma et al.	
4428454	Jan., 1984	Capaul et al.	
4600619	Jul., 1986	Chee et al.	
4661392	Apr., 1987	Kapstad.	
4702046	Oct., 1987	Haugen et al.	
4821839	Apr., 1989	D'Antonio et al.	181/286
4964486	Oct., 1990	D'Antonio et al.	
4967872	Nov., 1990	Hart.	
5027920	Jul., 1991	D'Antonio et al.	
5117598	Jun., 1992	Livingston et al.	
5160816	Nov., 1992	Chlop.	
5193318	Mar., 1993	D'Antonio et al.	
5226267	Jul., 1993	D'Antonio et al.	
5548656	Aug., 1996	Weisel.	
5587564	Dec., 1996	Stief et al.	
5780785	Jul., 1998	Eckel	181/295
Foreign Patent Documents (2)			
0 015 245	Sep., 1980	EP.	
0 024 461	Mar., 1981	EP.	
0 257 483	Mar., 1988	EP.	
0 438 384 A1	Jul., 1991	EP.	
560702	Sep., 1993	EP.	
0 257 483 B1	Apr., 1994	EP.	
0 777 403 A2	Jun., 1997	EP.	
2451520	May., 1976	DE.	
639164	Jan., 1982	CH.	

Table 2

International bibliography related with diffusers: theory, design, measurements, classification

1. D'ANTONIO, P., The Directional Scattering Coefficient: Experimental Determination, J. Audio Eng. Soc. 40, No.12. 997-1017 (December 1992).
2. D'ANTONIO, P., KONNERT, J.H. and KOVITZ, P. The Disc Project. Experimental Measurement of the Directional Scattering Properties of Architectural Acoustic Surfaces, IpAAd2, 14 I 144 (June 1994).
3. COX, T.J. and LAM, Y.W. Evaluation of Methods by Predicting the Scattering from Simple Rigid Panels. Applied Acoustics. 123-140 (1993).
4. COX, T.J. and LAM, Y.W., Prediction and Evaluation of the Scattering from Quadratic Residue Diffusers, J.Acoust.Soc.Am. 95(I). 297-305. (1994).
5. ISO 66:1997, Acoustics - Preferred frequencies. Geneva, Switzerland: International Organization for Standardization.
6. IEC 61260 (1995-08) Electroacoustics - Octave-band and fractional-octave-band filters. Geneva, Switzerland: International Electrotechnical Commission.
7. DRAFT AES-4id-xxxx , AES information document for room acoustics and sound reinforcement systems-Characterization and measurement of surface scattering uniformity , AES 2000.